



Missouri Department of Natural Resources

Water Quality Coordinating Committee Water Pollution Control Program

Meeting Minutes

September 16, 2003

WATER QUALITY COORDINATING COMMITTEE

Governor Office Building
200 Madison Street, Room 470
Jefferson City, Missouri

September 16, 2003
10:00 a.m.

MEETING AGENDA

Watershed Vulnerability to Herbicide Transport in Northern Missouri and
Southern Iowa Streams - Bob Lerch, Agricultural Research Service

Missouri's Special Area Land Treatment (SALT) Ag Nonpoint Source Grant
Program, Status Report - Ken Struempf, Soil & Water Conservation Program

State Water Plan - Joe Engeln, MoDNR

Other
604(b) Grants

Agency Activities

Meetings & Conferences

MISSOURI WATER QUALITY COORDINATING COMMITTEE

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MINUTES

Attendees:

Becky Shannon	DNR/WPSCD/WPCP	John Johnson	DNR/WPSCD/WPCP
Ken Struempf	DNR/WPSCD/SWCP	Colleen Meredith	DNR/WPSCD/WPCP
Terry Timmons	DNR/WPSCD/PDWP	Pete Davis	EPA Region 7
John Hoagland	MRWA	Jeannette Schafer	EPA Region 7
Terry Frueh	DNR/GSRAD/WRP	Bob Steiert	EPA Region 7
Mubarak Hamed	DNR/GSRAD/WRP	Robert Brundage	Mo-Ag Industries
Paul Hauser	Clean Water Commission	Priscilla Stotts	DNR/WPSCD/WPCP
Gene Wiseman	Dept. of Agriculture	Sharon Clifford	DNR/WPSCD/WPCP
Mike Alesandrini	St. Louis RCGA	Bob Veenstra	URS
Greg Anderson	DNR/WPSCD/WPCP	Bob Lerch	USDA-ARS
Gail Wilson	DNR/WPSCD/WPCP	Lynn Stanley	USDA-ARS
Denise Evans	DNR/Office of Director	Anne Peery	DNR/WPSCD/WPCP
Cindy Wolken	DNR/WPSCD/WPCP	Joe Dom	DNR/WPSCD/WPCP
Angel Kruzen	Water Sentinel/Sierra Club	Claire Baffaut	UMC-FAPRI
Gary Baclesse	DNR/WPSCD/SWCP	Jack Dutra	JD Information Services Inc.
Steve Taylor	MO Corn Growers Association	Paul Andre	Dept. of Agriculture
Kevin Scherr	DNR/WPSCD/SWCP	Bob Ball	USDA-NRCS
June Sullens	DNR/OAC/EAO	John Lodderhose	St. Louis MSD
Nancy Giddens	Mo-Ag Industries	Tom Wallace	MEC Water Resources
Charlie DuCharme	DNR/GSRAD/WRP	Bob Broz	UOE Water Quality
Carol Garey	DNR/WPSCD/WPCP	Bart Hawcroft	Dept. of Agriculture
Martin Hummel	MO Public Service Commission	Glenn Lloyd	DNR/OAC/EAO
Randy Sarver	DNR/ALPD/ESP	Darlene Schaben	DNR/WPSCD/WPCP
Joe Engeln	DNR/Office of Director		

Becky recognized Bob Steiert who will be retiring September 19, 2003. Bob has 39+ years of federal service. Bob will continue monitoring for Stream Team #308. Jeannette Schafer will be handling some of Bob's projects.

Introductions were made.

Watershed Vulnerability to Herbicide Transport in Northern Missouri and Southern Iowa Streams,

Bob Lerch, Agricultural Research Service

Handouts: Copy of PowerPoint Presentation; business card

This study was co-authored by Paul Blanchard, formerly with UMC, now with MDC. The study area is the northern Missouri and southern Iowa region. Southern Iowa is included because many of the headwaters of the streams begin in Iowa. The study area includes 21 sites and six watersheds, including Black River and the outlet of Mark Twain Lake. The area is predominately agricultural watersheds with an average of 96% of the area in row crop or forage production. The land resource area has deep loess hills with well draining soils to the west and claypan soil with poor draining soils to the east.

In 1994, work on the MSEA project showed herbicide contamination of streams was common. (This was the beginning of this current study.) Atrazine, cyanazine, triazine metabolites and metolachlor were most commonly detected. Land use was not a controlling factor on herbicide concentrations. They are looking for a way to assess watershed vulnerability to herbicide transport to provide a basis for prioritizing best management practice implementation and TMDL establishment. Their objectives are to document herbicide occurrence and transportation from watersheds in the northern Missouri and southern Iowa region; to quantify watershed vulnerability to herbicide transport and relate vulnerability to soil properties; and to compute the contribution of the region to the herbicide load of the Missouri and Mississippi rivers.

Bob explained the stream sampling process. Existing USGS monitoring stations were used. Samples were collected between April 15 and July 15 from 1996 to 1999. Land use estimates were figured for each watershed by taking LandSat data plus county data for planted acreage of specific crops. The study only included corn, soybeans and sorghum. Herbicide use estimates were computed for each watershed by using the estimated acreage of these crops within each watershed combined with state level annual reports of agricultural chemical usage for each relevant crop. Load calculations showed April 15 to June 30 as being the critical loss period for herbicide transport. Bob showed a chart of herbicide occurrences with frequency of detection and median concentrations. Atrazine and metolachlor are the top two herbicides with water quality issues. Comparisons across watersheds require a means of normalizing the data since no two watersheds are the same. The most common approach to compare is to look at herbicide transport as a percentage of herbicides applied within the watershed. USGS uses this method. ARS (USDA-Agriculture Research Service) came up with another method. They looked at areal herbicide loss rates on a mass per treated area basis. This is computed based on the verified LandSat and county land use data. It provides a more accurate measure of watershed vulnerability and can be tailored to laboratory analytical capabilities. Maps were shown of estimated atrazine losses from 1997-1999. Rainfall events had a big effect on the losses. Some of the maps showed watershed vulnerability of areal loss on a treated acre basis and the hydrologic soils. Some factors include slope and no-till in the watersheds.

In summary, median parent herbicide losses, as a percentage of applied, ranged from 0.3 to 3.9%. Watershed vulnerability to herbicide transport showed that the runoff potential of soils was a critical factor affecting herbicide transport. Herbicide transport from these watersheds contributed a disproportionately high amount of the herbicide load to both the Missouri and Mississippi rivers.

Bob said they also measured nitrate in this study. Once this ARS data has been published in a journal, it will be public information and can be shared. They expect it to be published in *Environmental Science & Technology* in early 2004. For the future, they will focus more intensely on more vulnerable areas and where USGS has monitoring stations and will work with best management practice implementation.

Missouri's Special Area Land Treatment (SALT) Ag Nonpoint Source Grant Program, Status Report, Ken Struempf, Soil & Water Conservation Program

Ken is the SALT Manager for the Soil & Water Conservation Program (SWCP) in DNR. SALT is a grant to Soil & Water Conservation Districts (SWCD) to lessen the impact of agriculture nonpoint sources by implementing best management practices on agricultural land. Ken gave a PowerPoint presentation. He showed a map of the locations of the 48 active SALT projects; 3 of which have completed their projects (Boone, Laclede, Barry counties).

In this 6th call, 31 counties have applied for funding. Funding is only available for 10-12 projects. Last year, the SWCP processed approximately 1600 SALT application claims, including 272 for pest management projects; 279 for nutrient management projects; 117 for seeding practices; 2 for bank stabilization projects; and 12 for animal waste system projects. Approximately \$900,000 was spent on terrace practices; \$280,000 on nutrient management practices; \$430,000 on pest management practices; \$270,000 on animal waste systems. Last year, practices were implemented on approximately 95,000 acres. The average cost-share per practice was \$22,000 for

animal waste systems; nutrient management was \$5,000 and \$1,500 for pest management which were about 150 acres each. In 2002, approximately \$3.6 million was spent on 50 projects. Most of the first call pilot projects from 1998-1999 will be completed this year or next. Last year, 6,500 claims were processed for the amount of \$20,706,000 and an average cost-share rate of 65% of the actual cost of the practice. These practices saved over 3.3 million tons of soil over a life span of 5-10 years. A total of 105,000 acres were served. On an average, Districts have claimed 87% of their initial allocations.

The SWCP can produce cost-share reports by 8-, 11- or 14-digit hydrologic unit codes (HUCs) for SALT, cost-share and CREP. The report shows types and number of practices implemented, dollars utilized, extent installed, tons of soil saved, and acres served. A list of projects, their goals and objectives and status of the projects can be found on Internet.

SALT funding comes from 1/10 of 1% of the Parks & Soils Sales Tax, which will expire in 2008. It will go before the voters again in 2006.

State Water Plan, Joe Engeln, MoDNR

Handout: Vision for the State Water Plan, July 14, 2003

The Water Resources Program recently completed Phase II of the State Water Plan. In July, the director of MoDNR charged Joe to lead Phase III. The department would like to see the State Water Plan become the prime water planning tool for the department and our partners. Joe's goal is to spend the rest of this calendar year working on the process so that early 2004 the next phase can be implemented. The State Water Plan would be the comprehensive document for those who are doing planning for water resources and water quality in the state of Missouri. This would be a useful tool to look at priorities department-wide and provide a tool for cooperating agencies, local interest groups, to use in their own watershed. Internal meetings have been held and meetings are now being scheduled with critical partners, including NRCS, Department of Agriculture, MDC and EPA. The goal is to get an idea of what people see that they can contribute to the Plan and what their expectations are. The State Water Plan will continue using its regional structure. The Plan should be reactive and look at where actions can be taken in advance of that stage to keep streams off the 303(d) list. They will use a watershed approach. Joe is planning to hold a workshop in October for approximately 150 attendees to put together a broader input into this Plan. This is still very much in the planning stage.

The handout included Joe's outline of goals for the rest of 2003 and the need to identify key partners in order to get their input. Joe envisions a core group being formed to be able to reach out to issues experts, programmatic experts, and local experts. A decision-support tool (similar to the Missouri Watershed Inventory & Assessment Project used by UMC-CARES) will be used to assist in making decisions. Documents (reports, GIS maps, etc.) will be available electronically. The decision-support tool will be available to watersheds to help them set their priorities. Feedback is expected to provide better support for programs.

Joe feels this will be a challenging vision but will make discussions across the state on water quality better. Please send any comments to Joe at nregej@dnr.state.mo.us. This is very much a draft document but the vision is set. With everyone's assistance, they hope to make this document a most helpful and useful plan. Bob Steiert felt this was a good tool and a positive step forward.

Becky stated that Joe plans to update the group periodically on the progress.

Other

604(b) Grants - Becky explained that this is funding set aside for water quality planning and water quality activities. A portion is required to go to Regional Planning Commissions (RPCs). The administration of the funds going to the RPCs will be shifted from WPCP to OAC. Glenn Lloyd will be the new contact for subgrant

work. The goal is to better focus the funding. Glenn said they will use the State Water Plan to help the RPCs. With assistance from June Sullens, OAC, they plan to schedule stakeholder meetings with the RPCs. Contact Glenn or June if you have any questions.

2002 303(d) List Status – Becky said that EPA should have the list out by the end of the year.

Poultry Litter Exchange Web Site – Glenn explained this is similar to what Oklahoma has. It is a market place for people to register who desire to have litter, have litter for sale or exchange, and includes a list of people that clean out houses and also transport it and spread it. This is an information sharing site that has been up and running for about 3 weeks now. On the Internet, information is available at www.mo-poultry.org or through DNR's web site. It is a "hooking people together" site and similar to a waste exchange program.

Agency Activities

Priscilla Stotts announced that Worldwide Monitoring Days will be September 18 to October 18. Priscilla had flyers that were downloaded from the American Clean Water Foundation web site. Priscilla is trying to rally the Steam Teams to monitor during this time. Let Priscilla know if you have suggestions on how/what to do to help celebrate. Monitors can plug into a national map and choose their site. Priscilla's goal is to have Missouri be the shiniest map in the nation.

Bob Steiert said that last year Missouri was a shining star with EPA on the 30th Anniversary of the Clean Water Act. He felt this would help with future funding for Missouri. Bob expressed his appreciation of everything the group has provided for him.

Jeannette Schafer talked about Bob's shoes being too big to ever fill. She will be taking over 604(b) and 106 grants and will be leaving the TMDL Program. She will still be the EPA representative at the TMDL PAC meetings. Her goal will be to focus more on implementation and watersheds and on doing cross-program and cross-agency work. Contacts are still Jack Generaux (TMDL Team Leader), Ann Lavaty, Damon Frizzel. Jeannette's position will not be filled. EPA is still re-organizing. Jeannette will inform the group of the changes when they become more final. There is to be a Watershed Planning Branch, which Jeannette will be a part of. The Branch Chief position is currently being advertised. Part of the plan for the new Watershed Planning Branch is for staff to be out in the field more and do pilot projects. EPA, with DNR taking the lead, will work with the City of Sedalia in doing a source water protection plan and implementation.

Pete Davis will still be administering 319 grants for Missouri. The FY04 319 Guidelines should be out soon. Becky said the Request for Proposals is on hold until we receive the guidance.

Glenn Lloyd has been involved with training to reduce erosion in construction sites. Between now and February, 19 sessions are scheduled. The next available training open to the public will be in Jackson County where they are working with an SWCD on an urban erosion from a construction site problem. Glenn had a brochure available with information. The SWCD is working on getting a grant from the Soil & Water Conservation Program to help with funding. The Missouri National Guard and Missouri Department of Transportation are scheduled to be trained. Guy Frazier will be assisting Glenn with this training.

Gail Wilson mentioned that the Kelley Branch/Rocky Fork TMDL is now off public notice. DNR received three comments. The TMDL will then be sent to EPA.

Mary West mentioned that the Missouri Water & Wastewater Conference will be held next week in Columbia.

Bob Broz mentioned that on Friday, September 19, at 9:00, there is an interagency Water Festival at Mark Twain Lake. Cooperative agencies include DNR, NRCS, SWCDs, University Extension, COE & MDC. Approximately 1200 school kids are expected. Also, on Friday, the Big River Cleanup in St. Charles is scheduled. This is a barge cleanup with 600-800 kids expected.

Bob Ball handed out information on behalf of the Missouri's Show-Me Chapter of the Soil & Water Conservation Society (SWCS). A Fall Forum is scheduled on October 7 in Jefferson City on "Sand and Gravel Mining in Missouri." The registration form and detailed program is on the SWCS web site.

Paul Andre gave the group a heads up that the Pesticide Program is undergoing reorganization. Jim Lea has moved to be the Plant Industries Division Director. John Brunnert is now the Program Administrator. Not all positions will be refilled.

Anne Peery said the Shoal Creek TMDL is on Public Notice until September 28. They have been working to get a watershed group started to get implementation plans going. There is a group there with a lot of interest. Anne also announced that DNR's watershed web site is up & running. Check it out.
(http://www.dnr.mo.gov/wpscd/wpcp/watersheds/ws_statewide.htm)

Bob Lerch pointed out that the handout includes the three major objectives of the research. Contact Bob if you would like more information. John Sadler is the Research Leader. ARS is involved in the early phases of a watershed planning process with NRCS. Details have not yet been worked out.

Sharon Clifford announced that the TMDL PAC meeting will begin at 1:00 today.

Bob Steiert mentioned the cleanup in Kansas City over the last weekend was quite successful. There were 1000 kids on Friday and 600 volunteers on the stream banks on a rainy Saturday.

Joe Engeln said that Missouri River Relief sponsors the cleanups. Their Board approved an operating plan for next year to race the Lewis & Clark flotilla the entire length of the Missouri River in Missouri. Their goals are to clean the river and extend the news cycle. Web site: riverrelief.org. Joe is on the Board of Directors. They will be in St. Charles on Saturday.

The next meeting will be in Columbia on October 21.